

## LRFD Bridge Design Manual Update ~ January 2014

Article	LRFD
0	Revise for haunch section move, and remove K. Dunker for editorial issues.
3.2.1	Add assignment of FHWA number to the preliminary designer responsibility.
3.2.2	Remove Q2 from list discharges the designer should calculate.
3.2.2.1	New methodology for bridge hydrology with emphasis on updated gage data and USGS Scientific Investigative Report 2013-5086.
3.2.2.6	Add identification of riprap limits to TSL sheet
3.2.6	Note that standard plans for the H30SI series bridges designed according to LRFD now are available.
3.2.6.4	Revise policy for the minimum grade on bridge replacement projects.
3.2.7.2	Add guideline for sloping the bottom footing for stub abutments.
3.2.7.3.6 and C3.2.7.3.6	Add new section on grading control points for channel shaping or special grading. Add Commentary example.
3.2.7.4& C3.2.7.4	Revise guidance relative to the required AASHTO LRFD collision force and the Iowa DOT policy for obtaining an exemption.
C3.2.9	Revise Preliminary Bridge Design Situation Plan Sheet(s) Layout Guidelines to clarify that the Site Plan should typically be 1 sheet.
5.1.1	Note that H30SI series has been reissued for LRFD.
5.2.1.1 and 5.2.4.1.2	Require stainless steel for bars or dowels exposed during two season staged construction.
5.3, C5.3	Add haunch sections compatible with LRFD sections in the manual.
5.5.2.4.2	Added Figure 5.5.2.4.2 require painting the fascia of exterior girders on the median side only where the median opening is 30' or less
5.5.2.4.3	Revised Figure 5.5.2.4.3-1. Shop drawing review stamp. Revised Figure 5.5.2.4.3-2. Flow chart for shop drawing review by consultant.
5.6.2.4.2	Revise cover amount.
5.8.2	Add new pedestrian facilities section.
5.8.5	Add new section on reinforcement protection, and note the need for stainless steel for bars or dowels exposed during staged construction.
6.1 and 6.1.5	Revise text and add references for ISU LRFD calibration for driven piles.
6.3.2	Clarified Loads
6.3.5	Correct figure number to 6.3.5.
6.5.1.1.1 and 6.5.1.1.2	Revise to require a paving block detail if the approach slab will not be placed by the bridge contractor.
6.5.4.2.2	Add recommendation to slope the bottom of a stub abutment if the difference between elevations is large.
6.6.4.2.1, 6.6.4.2.1.1, 6.6.4.2.1.2, and 6.6.4.2.1.3	Make revisions to permit P10L bents to be used for rolled steel beam bridges.
6.6.4.2.1.2 and 6.6.4.2.1.3	Revise table titles and remove maximum plan sheet bearing columns that were used for ASD and interim LRFD.

CATD	Clarify buckling load and Strength I load criteria.
6.7	New section Retaining walls
7.2 and C7.2	Add new sections for falsework and forms. (Design values are coordinated with the Iowa DOT Standard Specifications.)
9.1.9.1.9 and C9.1.9.1.9	Revise “Other” to “Asbestos”, and add guidelines for asbestos removal.
11.2.1 and 11.2.2	Change E50 and M50 titles to bridge repair, and refer to Section 9 for more information. Change E50 note $f'_c=4.0$ KSI Add note E48 - Reinforcing Bars, Dowels
11.2.2	Revise CADD Note E50B to require LRFD Specifications.
11.7	Add note E835 Bearing Resistance Add note E601C Design culverts
C11	Updated Figure 2 - Temporary Shoring Plan Review Flowchart for Zone 3 approval

<b>Article</b>	<b>ASD/LFD</b>
---	No changes (but new 7.2 and C7.2 are written for ASD based on current AASHTO Temporary Works Standard).